July 19, 2006

TO: Members of the MAG Specifications and Details Committee

FROM: Robert Herz, Maricopa County DOT, Chairman

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF AGENDA

Wednesday, August 2, 2006, 1:30 p.m. MAG Office, Second Floor, Cholla Room

302 North First Avenue, Phoenix

The meeting of the MAG Specifications and Details Committee will be held at the place and time indicated above. The agenda for the meeting is provided below. Please park in the garage under the Compass Bank Building. Bring your ticket to the meeting, parking will be validated. For those using transit, the Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage. Please call me at (602) 506-4760 if you have questions about the upcoming meeting.

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AGENDA

ITEM

- 1. Call to Order
- 2. Approval of July 5, 2006 Meeting Minutes
- 3. 2006 Cases
- 4. General Discussion
- 5. Adjournment

COMMITTEE ACTION REQUESTED

- 1. No action required.
- 2. Corrections and approval of July 5, 2006 minutes.
- 3. For Review and Discussion.
- 4. For information and discussion.
- 5. No action required.

CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE
06-01	Safety Rail Addition to Detail 206	MCDOT	Herz	1/04/2006 4/05/2006		Yes No Abstain
06-02	Corrections to Detail 440, Revisions to section 615.6.2 and 615.7.	MCDOT	Herz	2/01/2006 440-1 Rev. 3/01/2006 Specs 5/03/2006		Yes No Abstain
06-03	Miscellaneous Bloopers Case A – Correct Section reference arrows on detail sheets 533-3 and 533-4.	MCDOT	Herz	2/01/2006 2/01/2006		Yes No Abstain
06-04	Reduce cement content requirement for RCP section 735.4(C)	Chandler	Fern	5/03/2006 5/03/2006		Yes No Abstain
06-05	Detail 120-2 SURVEY MARKER (FOR UNINCORPORATED AREAS OF COUNTY)	MCDOT	Herz	5/03/2006 5/16/2006		Yes No Abstain
06-06	Detail 426 DROP SEWER CONNECTIONS	Independent	Nebeker	7/5/2006 7/5/2006		Yes No Abstain
06-07	Detail 220 Add Mountable Curb & Gutter (Type M-24) and transition detail.	Scottsdale	Ramos	7/5/2006 7/5/2006		Yes No Abstain
06-08	Detail 220 Add Mountable Curb & Gutter (Type M-30) and transition detail.	Scottsdale	Ramos	7/5/2006 7/5/2006		Yes No Abstain
06-09	Detail 221 Replace Section A-A with View A-A Transition Detail.	Scottsdale	Ramos	7/5/2006 7/5/2006		Yes No Abstain

^{*} Case was approved with verbal modifications at time of voting.

MEETING MINUTES FROM THE MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD SPECIFICATIONS AND DETAILS COMMITTEE

July 5, 2006

Maricopa Association of Governments Office, Cholla Room 302 North First Avenue Phoenix, Arizona

AGENCY MEMBERS

Jim Badowich, Avondale David Fern, Chandler Steven Borst, Buckeye Mark Weiner, Gilbert

* Greg Rodzenko, Glendale Tom Vassallo, Goodyear Bob Herz, MCDOT, Chairman

- * Kelly Jensen, Mesa Jesse Gonzales, Peoria Jeff Van Skike, Phoenix (St. Trans.) Matthew Woodland, Phoenix (Water) Rodney Ramos, Scottsdale
- * Don Moseley, Surprise
- * James Bond, Tempe

ADVISORY MEMBERS

John Ashley, ACA

- * Jeff Benedict, AGC
 Brian Gallimore, AGC
- * Peter Kandaris, SRP, Vice Chairman
- * Don Cornelison, ARPA

Don Green, ARPA
Paul R. Nebeker, Independent
William Ast, NUCA

* Dale Phelan, NUCA

MAG ADMINISTRATIVE STAFF

Gordon Tyus

* Members not attending or represented by proxy.

GUESTS/VISITORS

Bill Naugle, N-Direct CAST in TACT
Paul Jacob, N- Direct CAST in TACT
Rita Chihanik, Neenah Foundary
Dustin Dunham, Herzog Contracting
Susan Dehart, Herzog Contracting
Stacy Walgraeve, Atlas Construction Supply
Laddie Fromelius, CC Environmental

Pat Glenn, Advanced Drainage Systems Jim Ficker, Advanced Drainage Systems Stew Waller, Arizona Cement Association Joe Zicaro, ASTM Chairman C 76, 506, 507 Aaron Avery, AZ-FLASH Chris Fiori, AZ-FLASH

1. Call to Order

Chairman, Bob Herz, called the meeting to order at 1:33 p.m.

2. Approval of Minutes

The members reviewed the June 7, 2006 meeting minutes. Jeff Van Skike introduced a motion to accept the minutes as shown. Jesse Gonzales seconded the motion. The motion passed unopposed.

3. 2006 Cases

- a. Case 06-01 Safety Rail addition to Concrete Scupper Detail 206. The committee had no discussion on this item.
- b. Case 06-02 Clarifications to Detail 440. The committee had no discussion on this item.
- c. **Case 06-03 Miscellaneous Corrections**, drafting correction to Details 533-3 and 533-4. The committee had no discussion on this item.
- d. Case 06-04 Reduced cement content for Reinforced Concrete Pipe (RCP) mixes, Section 735. Mr. Fern reported that a check with the local plants including Rinker and Ameron indicated that the cement content of their mix designs varies and may exceed the MAG requirements on an individual basis. Joe Zicaro, Chairman ASTM C 76 committee provided background information on the ASTM committee's past considerations for Portland cement quantity requirements. The designated cement content originated as part of a prescriptive specification, the present standard is primarily a performance-based specification and there have been committee discussions to delete the minimum cement content requirement from the standard.
- e. Case 06-05 Survey Marker revisions to Detail 120-2. The committee had no discussion on this item.

4. New cases

a. Case 06-06 – Detail 426 Drop Sewer Connections. Paul Nebeker proposed that the detail requirement to use of vitrified clay be deleted since not all sewer lines are constructed with vitrified clay pipe (see attachment). When an alternative pipe material is used, some inspectors have required the drop sewer portion be constructed only with vitrified clay pipe. An additional change to revise the callouts for *Caulder Coupling connection or approved equal* to indicate a generic flex coupling was suggested. Flex coupling requirements will need to be defined on the detail or in the specifications.

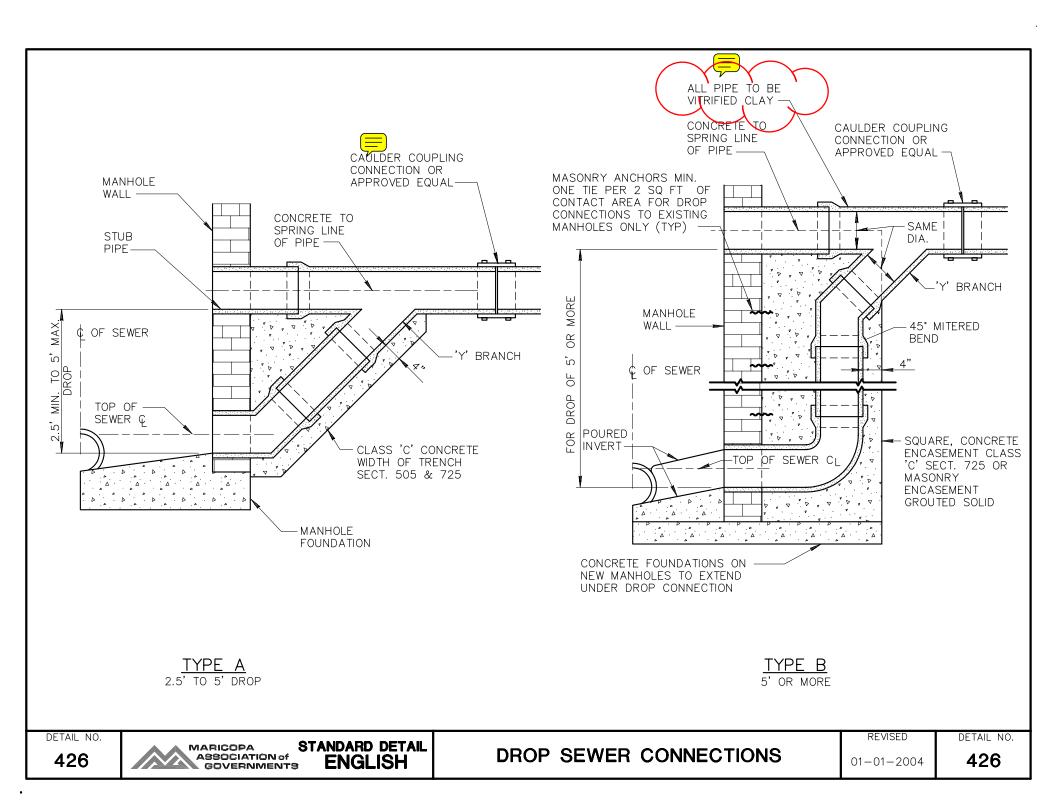
- b. Case 06-07 Detail 220, Add Mountable Curb & Gutter (Type M-24) with Transition Detail. Rod Ramos proposed the addition of a mountable curb detail used by Scottsdale to enable maintenance vehicles to access areas back of curb (see attachment).
- c. Case 06-08 Detail 220, Add Mountable Curb & Gutter (Type M-30) with Transition Detail. Rod Ramos proposed the addition of a mountable curb detail used by Scottsdale to enable emergency vehicles such as fire trucks to better traverse through restrictive traffic calming installations (see attachment).
- d. Case 06-09 Detail 221, Modified Transition Detail. Rod Ramos proposed to have Section A-A replaced with a View A-A depicting the desired curb transition geometrics. Rod suggested that a digital photo of an acceptable transition installation be used in the detail view. Photos showing how various contractors have interpreted the transition requirements were distributed. (See attachnents)

5. General Discussion:

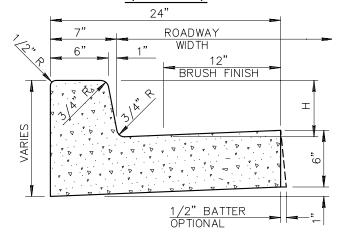
- a. Bill Naugle of N-Direct CAST in TACK distributed informational notebooks on detectable warnings and orally presented the material.
- b. Christine Fiori of AZ-FLASH distributed a proposed chart layout to be used for the initial phase of the MAG Specifications and Details Inventory (see attachment).

6. Adjournment:

The meeting was adjourned at 2:58 p.m.



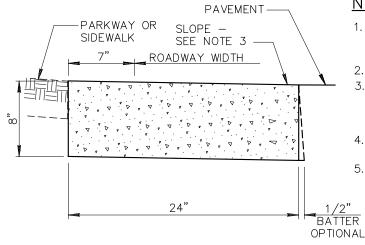
VERTICAL CURB AND GUTTER (TYPE A)



NOTES: (TYPE A)

- ALL EXPOSED SURFACES TO BE TROWEL FINISHED EXCEPT AS SHOWN. SEE SECT. 340.
- 2. H=6" OR AS SPECIFIED ON PLANS.
- 3. CONTRACTION JOINT SPACING 10' MAXIMUM.
- 4. EXPANSION JOINTS AS PER SECT. 340.
- 5. CLASS 'B' CONCRETE PER 725.

RIBBON CURB (TYPE B)



NOTES: (TYPE B)

- CONSTRUCT CURB AND INSTALL 1/2" MASTIC EXPANSION JOINTS, A.S.T.M. D-1751. SECT. 340.
- 2. BROOM FINISH ALL SURFACES.
- RIBBON CURB MAY SLOPE TOWARDS PAVEMENT OR PARKWAY AS INDICATED ON PLANS.
- 4. CONTRACTION JOINT SPACING 10' MAXIMUM.
- 5. CONCRETE SHALL BE CLASS 'B' PER SECT. 725 AND INSTALLED PER SECT. 505.

ROLL CURB AND GUTTER (TYPE C) JOINT 7" ROADWAY WIDTH 24" 9-1/2" 9-1/2" 5" WALK 9-1/2" 9-1/2" 5" 1/2" BATTER OPTIONAL

(TYPE D)

SPECIAL SECT. USE FOR HIGH SIDE CURB WITH SHEET DRAINAGE ACROSS STREET & **PAVEMENT** COLD FLUSH WITH JOINT-LIP OF GUTTER ROADWAY WIDTH SIDE-24" WALK-9-1/2" 9-1/2'.0 1/2" BATTER **OPTIONAL**

NOTES: (C & D)

- 1. ALL WORK AND MATERIALS SHALL CONFORM TO SECT. 304, 505 AND 725. BROOM FINISH TO EXPOSED SURFACE.
- 2. CONTRACTION JOINT SPACING 10' MAXIMUM.
- 3. EXPANSION JOINTS AS PER SECT. 340.
- 4. CLASS 'B' CONCRETE PER 725.

220

MARICOPA ASSOCIATION of GOVERNMENTS

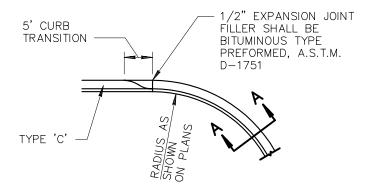
STANDARD DETAIL ENGLISH

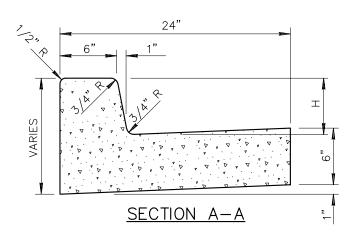
CURB AND GUTTER TYPES A, B, C AND D REVISED

DETAIL NO.

220

CURB AND GUTTER TRANSITION

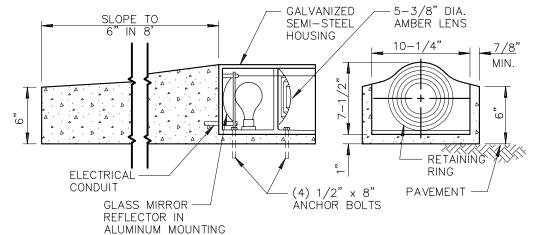




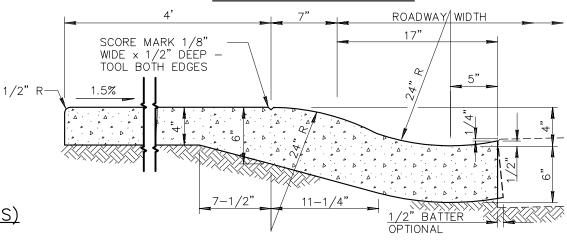
NOTES: (CURB AND GUTTER TRANSITIONS)

- 1. THE CURB TRANSITION WILL BE PAID FOR AS TYPE 'C'. WHEN A PROJECT CONSISTS OF TYPE 'C' CURB AND GUTTER THROUGHOUT, THE ENTIRE RETURN SHALL BE MEASURED AND PAID FOR AS TYPE 'A'.
- 2. WHERE PROPOSED CONSTRUCTION IS TO BE CONNECTED TO EXISTING CURB AND GUTTER, THE TRANSITION SHALL BE INDICATED ON PLANS.
- 3. CLASS 'B' CONCRETE PER SECT. 725.

CURB WARNING BEACON



INTEGRAL ROLL CURB, GUTTER AND SIDEWALK



NOTES:

- CONCRETE TO BE MONOLITHIC POUR. EXPOSED SURFACE FINISH AS PER SIDEWALK AND GUTTER DETAIL.
- 2. CONTRACTION JOINT SPACING 16' MAXIMUM.
- 3. EXPANSION JOINTS PER SECT. 340.
- 4. CLASS 'B' CONCRETE PER SECT. 725.

DETAIL NO. **221**

MARICOPA ASSOCIATION of GOVERNMENTS

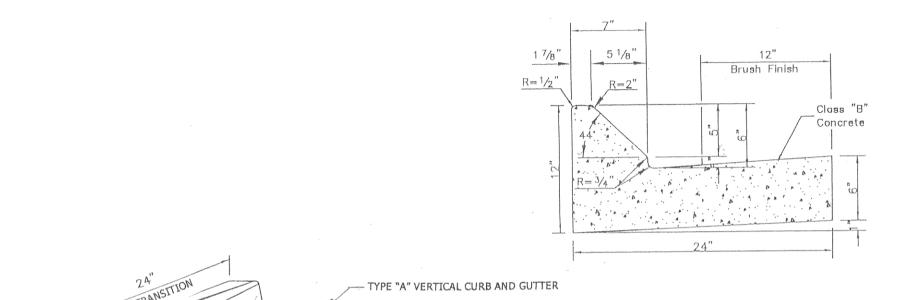
STANDARD DETAIL ENGLISH

CURB AND GUTTER (TRANSITION, INTEGRAL & WARNING BEACON)

REVISED

DETAIL NO.

221



NOTES:

1. ALL EXPOSED SURFACES TO BE TROWEL FINISHED EXCEPT AS SHOWN. SEE SECT. 340.

MOUNTABLE CURB AND GUTTER (TYPE M-24)

 CONTRACTION JOINT SPACING 10' MAXIMUM.
 EXPANSION JOINTS AS PER

SECT. 340. 4. CLASS 'B' CONCRETE PER 725.

MOUNTABLE CURB TO VERTICAL CURB TRANSITION

MARICUPA STANDARD DETAIL
ASSOCIATION OF ENGLISH

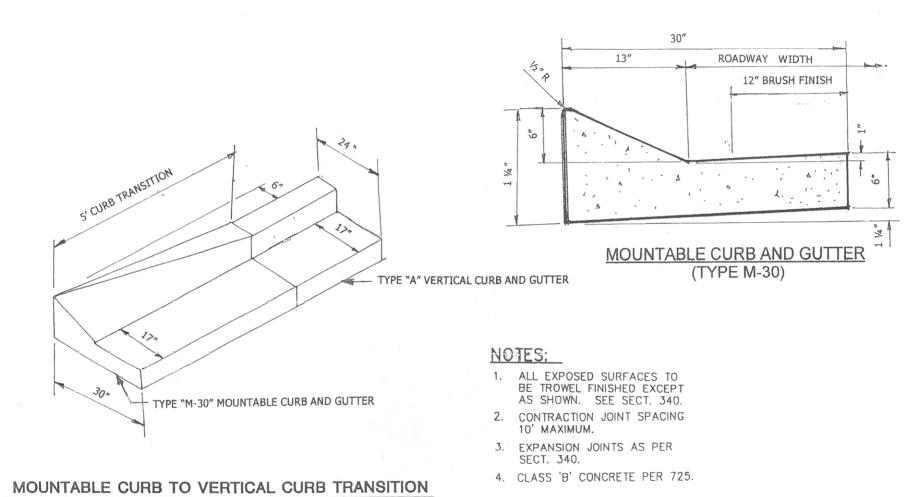
DETAIL NO.

220-1

CURB AND GUTTER
TYPE M-24

REVISED DE

DETAIL NO. 220 - 1

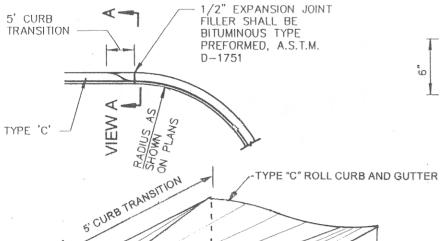


DETAIL NO.
220-2

MARICOPA STANDARD DETAIL
ABBOCIATION of ENGLISH

CURB AND GUTTER TYPE M-30 REVISED DETAIL NO. 220-2

CURB AND GUTTER TRANSITION



1/2" R-

ALUMINUM MOUNTING

GLASS MIRROR

REFLECTOR IN

SLOPE TO

6" IN 8

ELECTRICAL

CONDUIT

INTEGRAL ROLL CURB. GUTTER AND SIDEWALK

CURB WARNING BEACON

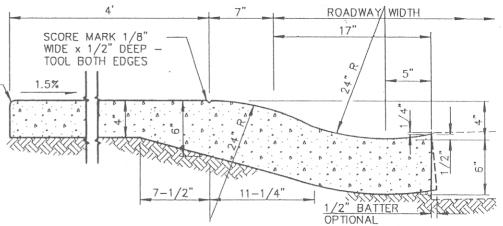
GALVANIZED

SEMI-STEEL

 $(4) 1/2" \times 8"$

ANCHOR BOLTS

HOUSING



VIEW A-A

NOTES: (CURB AND GUTTER TRANSITIONS)

TYPE "A" VERTICAL CURB AND GUTTER

- 1. THE CURB TRANSITION WILL BE PAID FOR AS TYPE 'C'. WHEN A PROJECT CONSISTS OF TYPE 'C' CURB AND GUTTER THROUGHOUT, THE ENTIRE RETURN SHALL BE MEASURED AND PAID FOR AS TYPE 'A'.
- 2. WHERE PROPOSED CONSTRUCTION IS TO BE CONNECTED TO EXISTING CURB AND GUTTER. THE TRANSITION SHALL BE INDICATED ON PLANS.
- 3. CLASS 'B' CONCRETE PER SECT. 725.

NOTES:

- 1. CONCRETE TO BE MONOLITHIC POUR. EXPOSED SURFACE FINISH AS PER SIDEWALK AND GUTTER DETAIL.
- 2. CONTRACTION JOINT SPACING 16' MAXIMUM.
- 3. EXPANSION JOINTS PER SECT. 340.
- 4. CLASS 'B' CONCRETE PER SECT. 725.

DETAIL NO. 221

MARICOPA ABSOCIATION of GOVERNMENTS

STANDARD DETAIL **ENGLISH**

CURB AND GUTTER (TRANSITION, INTEGRAL & WARNING BEACON) REVISED

5-3/8" DIA.

AMBER LENS

_7/8"

MIN.

RETAINING RING

PAVEMENT

10-1/4"

DETAIL NO.

221

Detectable Warnings Seminar--

I. What are Detectable Warnings?

- 1. How are they used by blind community? <u>N-Direct FAQ Enclosed</u>

 Dome size and shape correct—as not to impede the use of the long cane.
- 2. Definitions of a marker?
- 3. Considerations for the mobility community as well- Dome spacing
- 4. Color and finishing the surrounding concrete-
 - A. Color (main choices)
 - I. Most popular colors
 - II. Contrast
 - B. Finishing the surrounding concrete
- 5. Two most important issues for products chosen-
 - A. Slip Resistance
 - B. Integral Color

MAG Spec Enclosed

II. Placement of Detectable Warnings-

- 1. Curb line- face of curb, back of curb, flow line **N-Direct Placement Doc Enclosed**
- 2. Depth of dome placement issues **N-Direct Proper Width/Depth Guide Doc Enclosed**
- 3. No more lines, grooves, exposed aggregate or striations

Accessible Sidewalks and Street Crossings-an information guide Enclosed (An FHWA study completed in conjunction with Access Board in Washington, DC.)

III. Long-term Problems and/or Issues to consider-

- 1. Color and Fading-- UV Stability over time
- 2. Ability to Repair and Maintain
- 3. Moisture and air transference—hydration, cure times, etc.

N-Direct Moisture and Water Transference-Something to Consider Doc Enclosed

IV. Ramp Design-

- 1. Quarter round Design-toughest to design
- 2. One corner within 6 to 9 inches
- 3. Driveways
- 4. Effective Use of Curb

1995 Chapter 4 of Sidewalk Design from ADAAG

Color Ramp drawings for reference

V. Product Choice Selection

Brief Checklist

N-Direct Concerns with Bonding Long-Term to Concrete Doc Enclosed

VI. Specification writing

- 1. Control Joints N-Direct Purpose of Control Joints Doc Enclosed
- 2. Dome Spacing
- 3. Warranty and inspection
- 4. Make sure you review product data sheets to understand what is required, especially warranty and installation requirements.
- 5. Why would you ever let the contractor choose?

VII. Legal Issues

- 1. USDOJ-The ADA and City Government-Common Problems
- 2. City of Omaha recent agreement with DOJ